AMENDMENTS TO THE SPECIFICATION:

Please amend the indicated paragraphs of the specification in accordance with the amendments indicated below.

Page 3: paragraph c), amend as indicated below:

the normalized measured value being converted into a scalar quantity $D(t_n)$ for the graduated description of the course of the bone density, the equation

$$\cancel{D(t_n) = \sqrt{\sum_{k=1}^{K} Wk \cdot \left(M^*(t_n;k)\right)^2}}$$

$$D(t_n) = \sqrt{\sum_{k=1}^{K} W_k \cdot \left(M^*(t_n;k)\right)^2}$$

being used as functions for the graduated description of the course of the relationship

Page 3: paragraph d), amend as indicated below:

from the evaluations of the progress determined, evaluations of the progress for those time sections of

$$\cancel{D^*(t)=\frac{(t_n-t)\cdot D(n-1)+(t-t_{n-1})\cdot D(n)}{t_n-t_{n-1}},t\in[t_{n-1},t_n]}$$

$$D^*(t)=\frac{(t_n-t)\cdot D(n-1)+(t-t_{n-1})\cdot D(n)}{t_n-t_{n-1}},t\in[t_{n-1},t_n]$$

being calculated by interpolation, for which reference values are available,

Page 4: paragraph e), amend as indicated below:

from the interpolated evaluations of the progress, similarity dimensions being calculated, the function

$$\cancel{A_j(t)=\sum_{m=1}^{M}\frac{t_m}{t_M}\cdot V_m\cdot\left(R_j(t_m-D^*(t_m)\right)^2}$$

$$A_j(t)=\sum_{m=1}^{M}\frac{t_m}{t_M}\cdot V_m\cdot\left(R_j(t_m)-D^*(t_m)^2\right)$$

being used to calculate a similarity dimension between the data, which is to be investigated, and all the reference values, available in the database and, at the same time, similarity dimensions to the reference values and to the time in months being found;

Page 4: paragraph f), amend as indicated below:

from the similarity dimensions for all reference values, those reference values being determined, which have a high similarity in the mathematical sense, such as the

greatest similarity: $$\cancel{A^{*} = \min_{(illegible)} \left(A_j\right)}$$

$$A^{*} = \underbrace{\max}_{j=1,\ldots,J} \{A_j\}$$

positive alternative (+): $$\cancel{A^{+} = \min_{(illegible)} \left(A_j\right)}$$

$$A^{+} = \underbrace{\min}_{j=1,\ldots,J;A_j\neq A^{*};R_j(t_N)>D(t_N)} \{A_j\}$$

negative alternative (-): $\cancel{A^- = \min_{(illegible)} (A_j)}$

$$A^- = \underbrace{\min}_{j=1,..,J;A_j \neq A^*;R_j(t_n)<D(t_n)} \{A_j\}$$

with subsequent output of the type description as text component for describing the situation;

Page 9: paragraph c), amend as indicated below:

the normalized measured value is converted into a scalar quantity for the graduated description of the bone density loss, the equation

$$\cancel{D(t_n) = \sqrt{\sum_{k=1}^{K} Wk \cdot \left(M^*\left(t_n; k\right)\right)^2}}$$

$$D(t_n) = \sqrt{\sum_{k=1}^{K} W_k \cdot \left(M^*\left(t_n; k\right)\right)^2}$$

being used (K = 3; n = 1,...,3) as a function of the graduated description of the progress. Under the standard setup, it is, of course assumed that w = 1 for all weighting factors;

Evaluations of Progress at Time t

Page 9: paragraph d), amend as indicated below:

From the evaluations of the progress obtained, evaluations of the progress for those time intervals of

$$\cancel{D^*(t)=\frac{(t_n-t)\cdot D(n-1)+(t-t_{n-1})\cdot D(n)}{t_n-t_{n-1}},t\in[t_{n-1},t_n]}$$

$$D(t)=\frac{(t_n-t)\cdot D(n-1)+(t-t_{n-1})\cdot D(n)}{t_n-t_{n-1}},t\in[t_{n-1},t_n]$$

are calculated by interpolation, for which reference values are available;

Interpolated Evaluations of Progress at Imaginary Measurement Times at 6-Month Intervals.

Page 9: paragraph e), amend as indicated below:

from the interpolated evaluations of the progress, similarity dimensions are calculated, the function

$$\cancel{A_j(t) = \sum_{m=1}^{M} \frac{t_m}{t_M} \cdot V_m \cdot \left(R_j(t_m - D^*(t_m)\right)^2, j = 1,...,6; M = 6,}$$

$$A_j(t) = \sum_{m=1}^{M} \frac{t_m}{t_M} \cdot V_m \cdot \left(R_j(t_m) - D^*(t_m)^2\right) \quad ,j = 1,...,6; M = 6$$

being used for calculating a similarity dimension between the data, which is to be investigated, and all reference values available in the database, the following similarity dimensions being found. Under a standard setup, V = 1 for all weighting factors.

Page 10: paragraph f), amend as indicated below:

from the similarity dimensions for all reference values, those reference values are determined, which have a high similarity in the mathematical sense, such as the

greatest similarity:

$$\cancel{A^{*} = \min_{(illegible)} \left(A_j\right)}$$

$$A^{*} = \underbrace{\max}_{j=1,\ldots,J} \{A_j\} \qquad = 0,00$$

positive alternative (+):

$$\cancel{A^{+} = \min_{(illegible)} \left(A_j\right)}$$

$$A^{+} = \underbrace{\min}_{j=1,..,J;Aj\neq A^{*};R_j(t_N)>D(t_N)} \{A_j\} \qquad = 0,03$$

negative alternative (-):

$$\cancel{A^{-} = \min_{(illegible)} \left(A_j\right)}$$

$$A^{-} = \underbrace{\min}_{j=1,..,J;A_j\neq A^{*};R_j(t_n)<D(t_n)} \{A_j\} \qquad = 0,06$$

Page 11: paragraph h), second full paragraph, amend as indicated below:

h) The degrees of freedom for the specification of the model, given as functional parameters in the functional relation of $D(t_n)$ and $A_j(t)$, are filled in by reference values, in order to achieve a quantitative prediction of the ~~bond~~ bone density loss;

Please amend the abstract as indicated below by underlining, strikeouts, or double bracketing.

~~The aim of the invention is to provide a method~~ Method for determining ~~significant~~ losses in bone density which is less cost-intensive, ~~does not expose~~ avoids exposing the patient to radiation and whose response time is shortened in terms of the interaction between osteoclasis and osteosteosis. ~~According to the invention, this~~ This is achieved by using measuring values of real or mathematically simulated processes of bone density losses contained in electronic storage media, reflecting the temporal dependency of laboratory parameters with respect to practically or theoretically known clinical symptoms, as reference values during the process. Measuring values of bone markers are determined, using widespread laboratory techniques, from serum or urine samples during steps in which the samples are prepared such as the addition of antibodies, incubation steps, separation

methods and insertion in analysis techniques. Said values are associated with losses in bone density and are written into an electronic data memory with the aid of an input marker[[.]] and ~~According to the invention, said values~~ are used to ~~determined~~ determine significant losses in bone density.